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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/581,526	12/26/2006	Masahiro Okamura	292046US3PCT	6234

22850 7590 07/16/2009

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EXAMINER	
SEIFU, LESSANEWORK T	

ART UNIT	PAPER NUMBER
1797	

NOTIFICATION DATE	DELIVERY MODE
07/16/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/581,526	OKAMURA ET AL.	
	Examiner	Art Unit	
	Lessanework Seifu	1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *02 June 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *01/07/08;01/07/08;06/02/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1-7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burns et al. (US 2004/0122188) in view of Schumack (US 5,252,041).

Regarding claims 1-7 and 9, Burns et al. disclose a catalyst supply device for supplying catalyst slurry from a catalyst slurry supply vessel (18) to a reaction vessel (42) by means of a positive displacement pump (26) (see parags. [0033] and [0034]). Burns et al. disclose that the catalyst slurry supply vessel has an agitating blade (54) and that the reaction vessel is for fabricating polyolefin (see parag. [0023]). Burns et al. further disclose a flow meter (38) disposed between the pump (26) and the polymerization reactor (42) (see Fig. 1 and parag. [0026]). Burns et al, however, do not explicitly disclose a three-way piping connecting the catalyst slurry supply vessel, the reaction vessel and the positive displacement pump to one another.

Schumack teaches a positive displacement/diaphragm pump (10) comprising a three-way piping (40) for connecting the positive displacement pump to a fluid transporting line (see Fig. 1). Schumack further disclose an automatic suction valve (46) interposed between an inlet to a fluid transporting line and a crossing of the three-way piping (40), an automatic discharge valve (48) interposed between an outlet of the fluid transporting line and the crossing of the three-way piping (40) (see Fig. 1 and col. 2, lines 50-68). Schumack further disclose that the piping between the crossing of the three-way piping (40) and the positive displacement pump (10) is placed above the crossing of the three-way piping (see Fig. 1). Schumack further disclose that the positive displacement pump, the automatic suction valve (46), the automatic discharge valve and the three-way piping are integrally structured (see Fig. 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a positive displacement pump in configuration similar to

that disclosed in Schumack to the catalyst supply device of Burns et al. for the purpose of supplying a desired amount of catalyst slurry to the reaction vessel of Burns et al. and arrived at the claimed catalyst supply device.

It also would having been obvious to one having ordinary skill in the art at the time the invention was made to select any suitable size for the inner diameter of the flow path through which the catalyst slurry flows, including within the range as claimed, sufficient to effect a desired amount of flow through the catalyst supply conduit of Burns et al, because a change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 220 F.2d 459, 105 USPQ 237 (CCPA 1955). Where the only difference between the prior art and the claims is a recitation of relative dimensions of the claimed device, and the device having the claimed dimensions would not perform differently than the prior art device, the claimed device is not patentably distinct from the prior art device, Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984).

It also would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize any suitable connection means, including in the configuration as claimed, when connecting a flow meter (38) in the catalyst slurry flow-line between the pump (26) and the polymerization reactor (42) of Burns et al, because Burns et al. suggest providing a flow measurement instrument in the flow path of catalyst slurry between the positive displacement pump (26) and the polymerization reactor (42) for the purpose of measuring the flow of the catalyst slurry (see parag. [0034]).

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Burns et al. and Schumack as applied to claims 1 and 2 above, and further in view of Erickson et al. (US 6,251,817).

Regarding claim 8, Burns et al. and Schumack fail to teach or suggest a filter in a flow path of the catalyst slurry. Erickson et al. teach a method of reducing catalyst feed tube plugging in olefin polymerization process (see Abstract). Erickson et al. also teach filtering catalyst slurry through a filter to filter out undesired residual solids (see col. 24, lines 15-23). It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a filter between the mixing tank (14) and the catalyst slurry supply vessel (18, 54) of Burns et al. for the intended purpose of filtering out undesired solids from the catalyst slurry of Burns et al. because, Erickson et al. suggest filtering catalyst slurry through a filter to remove undesired residual solids (see col. 24, lines 15-23).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lessanework Seifu whose telephone number is (571)270-3153. The examiner can normally be reached on Mon-Thr 7:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on 571-272-1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/L. S./
Examiner, Art Unit 1797

/Walter D. Griffin/
Supervisory Patent Examiner, Art Unit 1797